

CLAIMS

1. A method for making a strand material comprising drawing and twisting a tape of drawable material.
2. A method according to claim 1, in which the tape is twisted whilst being drawn.
- A 3. A method according to claim 1 and claim 2, in which the tape is false twisted.
- A 4. A method according to ^{claim 1} ~~any one of claims 1 to 3~~, in which the tape is homogeneous through its cross-section.
- A 5. A method according to ^{claim 1} ~~any one of claims 1 to 3~~, in which the tape comprises a substrate and a coating.
6. A method according to claim 5, in which the coating is of an elastomeric or elastically stretchable material and is formed into a spiral cross-section with the coating on the inside of the spirals.
7. A method according to claim 5, in which the coating is of a heat sealable material.

- 19 -

A 8. A method according to claim 5 and claim 6, in which the coating is not elastically extensible.

9. A method according to claim 8, in which the coating is inelastically extensible.

10. A method according to claim 7, in which the strand material is set by heat sealing the material of the coating.

A 11. A method according to claim 5 and claim 7, in which the coating is of a heat seal adhesive.

12. A method according to claim 11, in which the heat seal adhesive comprises polyvinylacetate copolymer.

A 13. A method according to any one claims 4 to 12, in which the coating incorporates a dye which is transferred to the substrate.

14. A method according to claim 13, in which the dye is transferred by heating.

15. A method according to claim 14, in which the dye is a sublimable disperse dye and the strand material is heated to a temperature sufficient to sublime the dye.

- 20 -

16. Apparatus for processing a tape of a drawable polymer material comprising an arrangement for the supply of the tape, a drawing arrangement for the tape and twisting arrangement for the tape.

17. Apparatus according to claim 16, in which the supply arrangement comprises a support for a roll of tape.

A 18. Apparatus according to ~~claim 16 or claim 17~~, in which the drawing arrangement comprises input and output roller means.

19. Apparatus according to claim 18, in which the input roller means are heated.

A 20. Apparatus according to ~~any one of claims 16 to 19~~, in which the twisting arrangement comprises a false twisting arrangement.

21. Apparatus according to claim 20, in which the false twisting arrangement is located in the drawing arrangement so that false twist runs back to input roller means thereof.

A 22. Apparatus according to claim 20 or claim 21, in which the false twisting arrangement comprises a friction false twist arrangement.

23. Apparatus according to claim 22, in which the friction false twisting arrangement comprises a roller over which the tape is guided to run with a non-trivial

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- 21 -

angle between the direction of travel of the tape and the direction of travel of the roller surface where the tape contacts it.

24. Apparatus according to claim 23, in which the roller is free to be rotated by the tape as it runs over it.

25. Apparatus according to claim 24, in which the roller is driven.

26. A strand material comprising a drawn tape of drawable material curled around its lengthwise direction so as to have a spiral cross-section.

27. A material according to claim 26, in which the material of the tape has a homogeneous cross-section.

28. A material according to claim 27, in which the tape when uncurled has a width less than 5mm and when curled has a diameter less than 1mm.

A 29. A material according to ~~any one claims 26 to 28~~, in which the tape has no or substantially no real twist.

A 30. A material according to ~~any one of claims 26 to 28~~, in which the tape has real twist which is set.

A 31. A material according to ~~any one of claims 26 to 30~~, in which the tape is drawn to a higher than normal draw ratio.

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- 22 -

32. Strand material comprising a coiled tape having in cross-section an inner spiral of one hand, a diametral bar, and an outer spiral of opposite hand.

33. Strand material according to claim 32, of bicomponent tape comprising a substrate and a coating.

34. Strand material according to claim 33, in which the coating is of an elastomeric material.

A 35. Strand material according to claim 33 or claim 34, in which the substrate is on the outside of the outer spiral.

A 36. Strand material according to ~~any one of claims 33 to 35~~, in which the substrate is of a polymer such as nylon-6, nylon-6,6, or polyester.

A 37. Strand material according to ~~any one of claims 26 to 36~~, comprising additional spun filament material.

38. Strand material according to claim 37, in which the filament material is contained within the cross-section of the coiled tape.

A 39. Strand material according to ~~any one of claims 26 to 38~~, adapted for use as a weaving, knitting or sewing thread.

- 23 -

40. A knitted fabric comprising yarn of strand material according to any one of claims 26 to 39.

41. A woven fabric comprising yarn of strand material according to any one of claims 26 to 39.

42. A woven fabric according to claim 41, in which the yarns at the warp and weft crowns have been flattened by pressure to enhance the drapeability of the fabric.

43. A fabric, garment or other artefact sewn with a sewing thread comprising a strand material according to any one of claims 26 to 39.

44. A method of processing strand material according to any one of claims 26 to 39 by knitting, weaving, sewing, texturing or any other process in which the material is subject to flexure in which the material is softened by heat and/or moisture during such processing to increase its flexibility.

45. A seam in a fabric having differential flexibility due to a sewing thread used in the seam being of monofilament structure as by being a strand according to any one of claims 26 to 39 and being capable of cross-sectional deformation having become deformed in the seam so that its major cross-section lies in the plane of the fabric at the seam.

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